



Welcome United States Patent and Trademark Office

☐ Search Session History
[BROWSE](#)[SEARCH](#)[IEEE XPLORE GUIDE](#)

Wed, 8 Nov 2006, 4:28:00 PM EST

Edit an existing query or  
compose a new query in the  
Search Query Display.

## Search Query Display

Select a search number (#)  
to:

- Add a query to the Search Query Display
- Combine search queries using AND, OR, or NOT
- Delete a search
- Run a search

## Recent Search Queries

- |            |  |
|------------|--|
| <u>#1</u>  | (( kasumi <in>metadata ) <and> ( 3gpp<in>metadata ) )  |
| <u>#2</u>  | ( kasumi<in>metadata )   |
| <u>#3</u>  | kasumi   |
| <u>#4</u>  | (speed<IN>metadata)  |
| <u>#5</u>  | kasumi   |
| <u>#6</u>  | ((kasumi)<AND>(speed<in>metadata))   |
| <u>#7</u>  | (Kasumi and parallel processing<IN>metadata)   |
| <u>#8</u>  | (Kasumi and parallel processing<IN>metadata)   |
| <u>#9</u>  | (kasumi feal <and>parallel computation)  |
| <u>#10</u> | ((kasumi or feal <and>parallel computino)<IN>metadata)   |
| <u>#11</u> | ((kasumi or feal <and>parallel computation)<in>metadata)   |
| <u>#12</u> | ((kasumi or feal <and>parallel computation)<in>metadata)   |
| <u>#13</u> | (( cipher* or encryp*<in>au ) <and> ( speeded <in>metadata ) )<br><and> ( reduce production cost<in>metadata ) |
| <u>#14</u> | (( cipher* or encryp*<in>au ) <and> ( speeded <in>metadata ) )<br><and> ( reduce production cost<in>metadata ) |
| <u>#15</u> | (( cipher* or encryp*<in>au ) <and> ( speeded <in>metadata ) )<br><and> ( reduce production cost<in>metadata ) |
| <u>#16</u> | (kasumi<and>parallel )<and>comutation or processing  |
| <u>#17</u> | ((kasumi<and>parallel )<and>(comutation or processing)<br><IN>metadata)  |
| <u>#18</u> | ((kasumi<and>parallel )<and>(comutation or processing)<br><IN>metadata)  |

[#19](#) (kasumi) <and> (pyr >= 2000 <and> pyr <= 2002)

[#20](#) ((kasumi) <and> (pyr >= 1990 <and> pyr <= 2002)  
<IN>metadata)

[#21](#) ( fast implementation of secret-key bloack cipher<in>metadata )

[#22](#) ( mixed inner\*<in>ti )

[#23](#) ( chodowiec<in>au )



Indexed by  
 Inspec®

[Help](#) [Contact Us](#) [Privacy & :](#)

© Copyright 2006 IEEE -



Welcome United States Patent and Trademark Office

☐ Search Results

BROWSE

SEARCH

IEEE XPLORE GUIDE

Results for "((kasumi or feal &lt;and&gt;parallel computation)&lt;in&gt;metadata)"

☒ e-mail

Your search matched 10 of 1430374 documents.

A maximum of 100 results are displayed, 25 to a page, sorted by Relevance in Descending order.

## » Search Options

[View Session History](#)
[New Search](#)

## Modify Search


☐ Check to search only within this results set
Display Format: ☒ Citation ☐ Citation & Abstract

## » Key

IEEE JNL IEEE Journal or Magazine

IEE JNL IEE Journal or Magazine

IEEE CNF IEEE Conference Proceeding

IEE CNF IEE Conference Proceeding

IEEE STD IEEE Standard

 [Select All](#) [Deselect All](#)

- ☐ 1. **High-speed hardware implementations of the KASUMI block cipher**  
 Kitsos, P.; Galanis, M.D.; Koufopavlou, O.;  
Circuits and Systems, 2004. ISCAS '04. Proceedings of the 2004 International  
 Volume 2, 23-26 May 2004 Page(s):II - 549-52 Vol.2  
[AbstractPlus](#) | Full Text: [PDF\(258 KB\)](#) IEEE CNF  
[Rights and Permissions](#)
  
- ☐ 2. **A methodology for dynamic power consumption estimation using VHDL**  
 Alcantara, J.M.S.; Vieira, A.C.C.; Galvez-Durand, F.; Alves, V.C.;  
Integrated Circuits and Systems Design, 2002. Proceedings. 15th Symposium  
 9-14 Sept. 2002 Page(s):149 - 154  
 Digital Object Identifier 10.1109/SBCCI.2002.1137651  
[AbstractPlus](#) | Full Text: [PDF\(1165 KB\)](#) IEEE CNF  
[Rights and Permissions](#)
  
- ☐ 3. **Leveraging the Multiprocessing Capabilities of Modern Network Processors: Cryptographic Acceleration**  
 Gaubatz, G.; Sunar, B.;  
Network Computing and Applications, Fourth IEEE International Symposium on  
 27-29 July 2005 Page(s):235 - 238  
 Digital Object Identifier 10.1109/NCA.2005.28  
[AbstractPlus](#) | Full Text: [PDF\(200 KB\)](#) IEEE CNF  
[Rights and Permissions](#)
  
- ☐ 4. **ASC: a stream compiler for computing with FPGAs**  
 Mencer, O.;  
Computer-Aided Design of Integrated Circuits and Systems, IEEE Transaction  
 Volume 25, Issue 9, Sept. 2006 Page(s):1603 - 1617  
 Digital Object Identifier 10.1109/TCAD.2005.857377  
[AbstractPlus](#) | Full Text: [PDF\(360 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
  
- ☐ 5. **High performance encryption cores for 3G networks**  
 Balderas-Contreras, T.; Cumplicio, R.;  
Design Automation Conference, 2005. Proceedings. 42nd  
 13-17 June 2005 Page(s):240 - 243  
  
[AbstractPlus](#) | Full Text: [PDF\(198 KB\)](#) IEEE CNF

[Rights and Permissions](#)

6. **Design and implementation of Rijndael algorithm for GSM encryption**  
Soyjaudah, K.M.S.; Hosany, M.A.; Jamalooddeen, A.;  
[Mobile Future, 2004 and the Symposium on Trends in Communications. Symp IST Workshop on](#)  
24-26 Oct. 2004 Page(s):106 - 109  
Digital Object Identifier 10.1109/TIC.2004.1409510  
[AbstractPlus](#) | Full Text: [PDF](#)(660 KB) IEEE CNF  
[Rights and Permissions](#)
7. **An end-to-end hardware approach security for the GPRS**  
Kitsos, P.; Sklavos, N.; Koufopavlou, O.;  
[Electrotechnical Conference, 2004. MELECON 2004. Proceedings of the 12th Mediterranean](#)  
Volume 2, 2004 Page(s):791 - 794 Vol.2  
Digital Object Identifier 10.1109/MELCON.2004.1347050  
[AbstractPlus](#) | Full Text: [PDF](#)(463 KB) IEEE CNF  
[Rights and Permissions](#)
8. **Design space exploration with A Stream Compiler**  
Mencer, O.; Pearce, D.J.; Howes, L.W.; Luk, W.;  
[Field-Programmable Technology \(FPT\), 2003. Proceedings. 2003 IEEE Internat Conference on](#)  
15-17 Dec. 2003 Page(s):270 - 277  
[AbstractPlus](#) | Full Text: [PDF](#)(532 KB) IEEE CNF  
[Rights and Permissions](#)
9. **Design and implementation of a private and public key crypto processor application to a security system**  
Ho Won Kim; Sunggu Lee;  
[Consumer Electronics, IEEE Transactions on](#)  
Volume 50, Issue 1, Feb 2004 Page(s):214 - 224  
Digital Object Identifier 10.1109/TCE.2004.1277865  
[AbstractPlus](#) | Full Text: [PDF](#)(1093 KB) IEEE JNL  
[Rights and Permissions](#)
10. **An efficient reuse-based approach to implement the 3GPP KASUMI block**  
Balderas-Contreras, T.; Cumplido-Parra, R.A.;  
[Electrical and Electronics Engineering, 2004. \(ICEEE\). 1st International Confer](#)  
24-27 June 2004 Page(s):113 - 118  
Digital Object Identifier 10.1109/ICEEE.2004.1433860  
[AbstractPlus](#) | Full Text: [PDF](#)(295 KB) IEEE CNF  
[Rights and Permissions](#)

[Help](#) [Contact Us](#) [Privacy &](#)

© Copyright 2006 IEEE --

Indexed by  
 Inspec



USPTO

[Subscribe \(Full Service\)](#) [Register \(Limited Service, Free\)](#) [Login](#)

 Search: ☒ The ACM Digital Library ☐ The Guide

+KASUMI speed performance



THE ACM DIGITAL LIBRARY


[Feedback](#) [Report a problem](#) [Satisfaction survey](#)
Terms used **KASUMI speed performance**

Found 7 of 189,785

Sort results by

relevance

[Save results to a Binder](#)[Try an Advanced Search](#)[Try this search in The ACM Guide](#)

Display results

expanded form

[Search Tips](#)☐ Open results in a new window

Results 1 - 7 of 7

Relevance scale ☐ ☐ ☐ ☐ ☐1 [Survey and benchmark of block ciphers for wireless sensor networks](#)

Yee Wei Law, Jeroen Doumen, Pieter Hartel

February 2006 **ACM Transactions on Sensor Networks (TOSN)**, Volume 2 Issue 1

Publisher: ACM Press

Full text available: pdf(354.39 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Cryptographic algorithms play an important role in the security architecture of wireless sensor networks (WSNs). Choosing the most storage- and energy-efficient block cipher is essential, due to the facts that these networks are meant to operate without human intervention for a long period of time with little energy supply, and that available storage is scarce on these sensor nodes. However, to our knowledge, no systematic work has been done in this area so far. We construct an evaluation framew ...

**Keywords:** Sensor networks, block ciphers, cryptography, energy efficiency2 [Architectures for cryptography and security applications: High performance](#)[encryption cores for 3G networks](#)

Tomás Balderas-Contreras, René Cumplido

June 2005 **Proceedings of the 42nd annual conference on Design automation**

Publisher: ACM Press

Full text available: pdf(869.33 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

This paper presents two novel and high performance hardware architectures, implemented in FPGA technology, for the KASUMI block cipher; this algorithm lies at the core of the confidentiality and integrity algorithms defined for the Universal Mobile Telecommunication System (UMTS) standard. The first proposal is a pipelined design and the second implements an iterative approach. The throughput for these architectures turn out to be higher than the throughput achieved by other proposals.

**Keywords:** 3G, FPGA, KASUMI, UMTS security architecture3 [Special session on security on SoC: Securing wireless data: system architecture challenges](#)

Srivaths Ravi, Anand Raghunathan, Nachiketh Potlapally

October 2002 **Proceedings of the 15th international symposium on System Synthesis**

**Publisher:** ACM PressFull text available:  pdf(172.35 KB)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Security is critical to a wide range of current and future wireless data applications and services. This paper highlights the challenges posed by the need for security during system architecture design for wireless handsets, and provides an overview of emerging techniques to address them. We focus on the computational requirements for securing wireless data transactions, revealing a gap between these requirements and the trends in processing capabilities of embedded processors used in wireless h ...

**Keywords:** 3DES, AES, DES, IPSec, RSA, SSL, WTLS, decryption, design methodology, embedded system, encryption, handset, mobile computing, performance, platform, security, security processing, system architecture, wireless communications

#### 4 Taming the IXP network processor



Lal George, Matthias Blume

May 2003 **ACM SIGPLAN Notices , Proceedings of the ACM SIGPLAN 2003 conference on Programming language design and implementation PLDI '03**, Volume 38 Issue 5

**Publisher:** ACM PressFull text available:  pdf(159.27 KB)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

We compile Nova, a new language designed for writing network processing applications, using a back end based on integer-linear programming (ILP) for register allocation, optimal bank assignment, and spills. The compiler's optimizer employs CPS as its intermediate representation; some of the invariants that this IR guarantees are essential for the formulation of a practical ILP model. Appel and George used a similar ILP-based technique for the IA32 to decide which variables reside in registers but ...

**Keywords:** Intel IXA, bank assignment, code generation, integer linear programming, network processors, programming languages, register allocation

#### 5 Dynamic Platform Management for Configurable Platform-Based System-on-Chips

Krishna Sekar, Kanishka Lahiri, Sujit Dey

November 2003 **Proceedings of the 2003 IEEE/ACM international conference on Computer-aided design**

**Publisher:** IEEE Computer SocietyFull text available:  pdf(330.64 KB)Additional Information: [full citation](#), [abstract](#), [index terms](#)


General-purpose System-on-Chip platforms consisting of configurable components are emerging as an attractive alternative to traditional, customized solutions (e.g., ASICs, custom SoCs), owing to their flexibility, time-to-market advantage, and low engineering costs. However, the adoption of such platforms in many high-volume markets (e.g., wireless handhelds) is limited by concerns about their performance and energy-efficiency. This paper addresses the problem of enabling the use of configurable platforms ...

#### 6 Document exchange model for augmenting added value of B2B collaboration



Koichi Hayashi, Riichiro Mizoguchi

September 2003 **Proceedings of the 5th international conference on Electronic commerce ICEC '03**

**Publisher:** ACM PressFull text available:  pdf(148.98 KB)Additional Information: [full citation](#), [abstract](#), [references](#)

In this paper we present a B2B integration project, which aims to augment the added value of services instead of improving efficiency by automating processes. This paper introduces the VALUE Layered document Exchange (VALUE) model, which is a novel collaboration model adopted for this project. The key feature of the VALUE model is that partners exchange XML documents that are updated by adding elements for process information, such as the acceptance or rejection of a proposal, to received documents ...

**Keywords:** B2B, ebXML, supply chain management

7 A Logic Level Design Methodology for a Secure DPA Resistant ASIC or FPGA Implementation

Kris Tiri, Ingrid Verbauwhede

February 2004 **Proceedings of the conference on Design, automation and test in Europe - Volume 1**

**Publisher:** IEEE Computer Society

Full text available:  [pdf\(143.96 KB\)](#) Additional Information: [full citation](#), [abstract](#), [citations](#), [index terms](#)

This paper describes a novel design methodology to implement a secure DPA resistant crypto processor. The methodology is suitable for integration in a common automated standard cell ASIC or FPGA design flow. The technique combines standard building blocks to make new compound standard cells, which have a close to constant power consumption. Experimental results indicate a 50 times reduction in the power consumption fluctuations.

Results 1 - 7 of 7

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2006 ACM, Inc.

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact Us](#)

Useful downloads:  [Adobe Acrobat](#)  [QuickTime](#)  [Windows Media Player](#)  [Real Player](#)